Wheat and the Conservation Reserve Program: Past, Present, and Future

by
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Abstract: For 12 years the Conservation Reserve Program (CRP) has been one of USDA's most ambitious program efforts. At the height of the program in 1993-95, some 36.4 million cropland acres had been enrolled in the environmentally-oriented land retirement program. Approximately 60 percent of those acres were located in the Great Plains States where wheat is the main crop. According to a 1993 survey of participants, nearly 15 million acres or 41 percent of CRP had been planted to wheat prior to their enrollment. Based on the authority to continue the program provided by the Federal Agriculture Improvement and Reform Act of 1996, and against the backdrop of the scheduled 1997 expiration of contracts covering 21.5 million acres, USDA will hold a signup opportunity March 3-28, 1997. Simulations of a future 36.4 million acre CRP, based on USDA program rules, suggest that large regional enrollment shifts are unlikely and the commodity effects of the CRP in the future may not be very different from the current CRP.

Keywords: Conservation Reserve Program, wheat

For 12 years, the Conservation Reserve Program (CRP) has been one of USDA's most ambitious program efforts. Under this voluntary program, USDA pays farm owners and operators to idle highly erodible and/or environmentally sensitive cropland for 10-15 years. Participants receive annual rental payments during the contract period, and half the cost of establishing grass or trees on enrolled acreage.

Begun by the 1985 Food Security Act during a period of excess commodity supplies, low prices, and farm financial stress, the CRP was initially conceived as much for supply control as for environmental improvement. However, beginning with the droughts of the late 1980s, supply control became less important, and CRP implementation increasingly reflected its environmental and natural resource objectives.

In April 1996, President Clinton signed into law the Federal Agriculture Improvement and Reform Act (1996 farm act) that continues the CRP through the year 2002. Under the act, USDA can re-enroll existing eligible CRP acres as well as enroll new land, subject to a maximum annual enrollment of 36.4 million acres. Although the elimination of annual acreage reduction programs by the 1996 farm act makes the CRP the principal remaining program that reduces cropland availability, USDA has made it clear that it will operate the CRP not as a supply control program, but to conserve and improve natural resources including wildlife habitat, water quality, and soil.

Of the major commodities grown in the United States, wheat has historically been most affected by the CRP. This article looks at the CRP from the perspective of wheat acres idled by the program from its beginning to the present, and provides a idea of how the CRP may affect wheat in the future based on new CRP operating rules.

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Wheat and the CRP: 1986-1996

At the CRP's peak in 1993-95, some 36.4 million acres had been enrolled in the program (table A-1). Approximately 60 percent of the acres was located in the Great Plains where wheat is the main crop (Great Plains refers here to the Northern and Southern Plains and also includes CRP acreage in the Mountain region, where the bulk of enrollment is in the eastern portions of Colorado and Montana). Of the 36.4 million acres enrolled, 23 million represented commodity program base acreage, and nearly 11 million of those were wheat base acres. Corn base was next most prevalent at 4.3 million acres. According to a 1993 survey of CRP participants, nearly 15 million acres or 41 percent of CRP had been planted to wheat prior to their enrollment, 14 percent had been planted to corn, 10 percent had been planted to soybeans, 6 percent had been planted to sorghum, 5 percent had been planted to cotton, and 4 percent had been planted to barley (Osborn, Schnepf, and Keim, 1994).

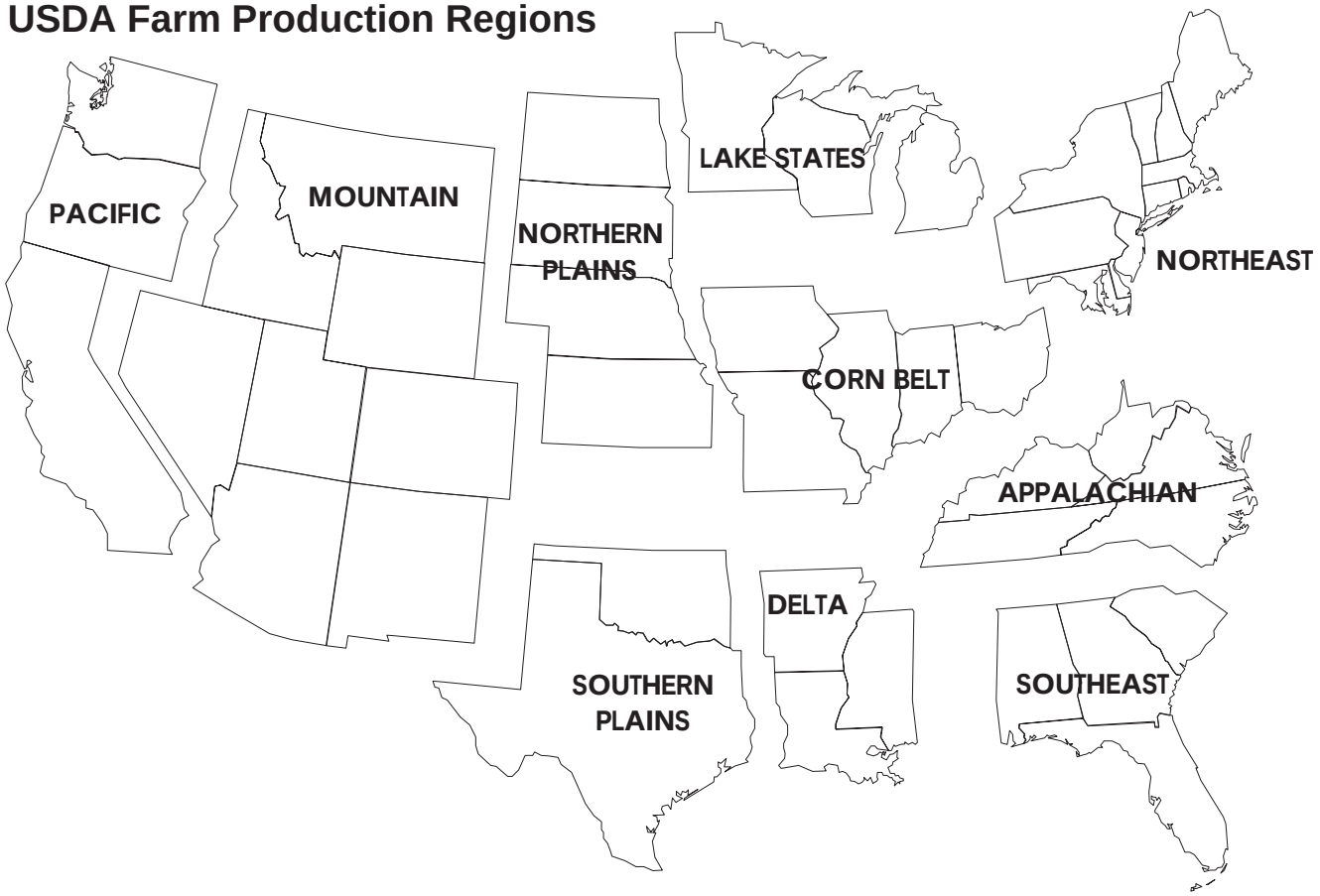
During May 15-June 2, 1995, CRP participants, except those with especially environmentally sensitive acreage or practices, were permitted to request early contract release without penalty or obligation to refund previous CRP payments. This

Table A-1--Acres in the CRP at the height of the program, 1993-95

Region	Total acres enrolled	Total base acres enrolled	Wheat base acres enrolled
		1,000 acres	
Appalachian	1,158	578	225
Corn Belt	5,603	3,137	736
Delta	1,248	505	251
Lake States	3,008	1,845	469
Mountain	6,687	4,182	2,598
Northeast	226	84	11
Northern Plains	9,664	6,644	3,400
Pacific	1,791	1,210	723
Southeast	1,693	796	387
Southern Plains	5,343	4,298	2,034
U.S. total	36,423	23,278	10,833

Figure A-1

USDA Farm Production Regions



early release was offered so that more environmentally sensitive cropland under new CRP contracts could be enrolled and to allow the released acres to produce additional grain, given low stocks at that time. Producers requested early release in 1995 on about 700,000 acres.

Regionally, 1995 early-out acres were greatest in the Corn Belt, followed by the Lake States and the Northern Plains. To replace these acres, USDA held a 13th signup during September 11-22, 1995. This was the first new signup since June 1992. To enroll acres with the highest environmental benefits relative to costs, offers were ranked using an environmental benefits index as was done in signups 10-12 of 1991-92. Of 1.2 million acres offered by producers, about 600,000 acres were accepted by USDA and ultimately placed under contract. Thirty-one percent of accepted acres were in the Corn Belt region, while 38 percent were in the Great Plains. Approximately 373,000 base acres were enrolled of which 139,000 were wheat base and 111,000 were corn base.

Also, in 1995, CRP participants with approximately 2 million acres of contracts scheduled to expire on September 30, 1995, were allowed to extend their contracts for one additional year. This opportunity was provided to help these producers make informed decisions about the future of their CRP acres because their contracts would expire before passage of the next farm act. As a result, contracts on all but 173,000 acres were extended. Combined with 1995 early-out acreage, this meant that approximately 878,000 acres left the CRP in 1995 (table A-2). Of these 158,000, acres were wheat base and 237,000 were corn base demonstrating, that as a percentage of enrolled base, corn was much more likely to leave the program than wheat.

On March 14, 1996, USDA announced a second early-out opportunity, only for contracts scheduled to expire on September 30, 1996, and another 1-year contract extension opportunity. With enactment of the 1996 act in April, the early-out opportunity for 1996-expiring contracts was expanded to allow producers to withdraw most lands from the CRP at any time subject to a 60-day notice to USDA. Approximately 768,000 acres were removed from the CRP under the 1996 early-out authority and 912,000 acres expired on schedule. The remainder were extended through 1997. Of the acres terminated or expired in 1996, 311,000 were wheat base and 599,000 were corn base — similar to the commodity mix for acres that left the program in 1995.

As a result of acres originally scheduled to expire in 1997, and the popularity of the 1-year contract extensions of 1995 and 1996, approximately 21.5 million CRP acres are currently scheduled to expire on September 30, 1997, of which 6.7 million represent wheat base.

Wheat and the CRP: 1997 and Beyond

Based on the authority of the 1996 farm act, USDA will hold a CRP signup opportunity during March 3-28, 1997. Producers wishing to enroll land, including the approximately 21.5 million acres with CRP contracts expiring in 1997 as well as non-CRP acres, must submit an offer and compete with all other offers for enrollment based on environmental benefits

Table A-2--Recent and projected CRP contract terminations/expirations

Base	Year of contract termination or expiration									
	1995	1996	1997	1998	1999	2000	2001	2002	2005	2006
	1,000 acres									
Wheat	157.7	311.2	6,673.8	1,566.6	1,275.9	96.8	238.6	208.2	82.6	56.7
Corn	237.1	559.1	2,018.6	492.4	356.8	81.1	184.2	233.0	90.0	20.8
Barley	37.2	96.5	1,724.8	433.2	330.3	24.3	45.6	29.3	18.9	12.6
Rice	0.1	1.1	3.7	3.5	3.7	0.3	0.9	0.7	0.2	0.1
Sorghum	43.0	55.3	1,733.8	281.9	199.7	20.6	41.8	41.7	19.1	10.5
Upland cotton	29.8	32.6	957.9	180.6	89.2	26.1	40.7	60.8	24.4	4.7
ELS cotton	0.0	0.0	0.2	0.1	0.0	0.0	0.1	0.4	0.1	0.0
Oats	37.7	56.3	754.6	214.9	165.1	18.9	41.9	40.8	25.4	6.9
Tobacco	0.1	0.0	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Peanuts	0.2	0.1	1.6	0.2	0.1	0.0	0.0	0.0	0.1	0.0
Nonbase acres	334.9	567.7	7,632.7	1,672.1	1,135.6	190.7	379.5	388.9	186.2	57.4
Total	877.7	1,680.1	21,502.0	4,845.7	3,556.4	458.8	973.4	1,003.8	446.8	169.7

Figures for 1995 include 704,000 acres removed in the 1995 early out opportunity, and 174,000 acres that expired on schedule. The remaining acres took advantage of the 1995 one-year contract extension opportunity. Figures for 1996 include 768,000 acres removed in the 1996 early out opportunity, and 912,000 acres that expired on schedule. The remaining acres took advantage of the 1996 one-year contract extension opportunity.

and cost. The results of this and future signups will determine the composition of the CRP of the future, including the relative effects on different commodities.

In the first nine CRP signups from 1986 to 1989, more than 60 percent of CRP enrollment was located in the Great Plains. However, because of the eligibility and acreage selection procedures laid out in current USDA rules, some have suggested that future CRP acreage might shift out of the Great Plains to other parts of the country. This concern stems partly from a decrease in Great Plains enrollment to 29 percent of new acres during signups 10-12 of 1991-92, while the Corn Belt and Lake States' share increased to 50 percent from just 22 percent under earlier signups.

The decline in Plains States' CRP enrollment under signups 10-12 resulted from three influences. First, beginning with signup 10, USDA employed an environmental benefits index (EBI) to rank bids for CRP acceptance. Although points were awarded for wind erosion reduction in the EBI's soil productivity term, water quality protection was emphasized and, due to the lack of an agreed-upon measure, wildlife habitat improvement was not included in the EBI. Consequently, many Great Plains acres had lower EBI scores compared with other parts of the country experiencing water quality problems.

Second, by the 10th signup more than 160 counties could not enroll additional CRP acres because they had reached their enrollment limit. By law, without prior approval, CRP enrollment cannot exceed 25 percent of the cropland in a county to minimize adverse effects on the local economy. Nearly all of these counties were located in the Great Plains.

Third, more importantly, starting with signup 10, maximum rental rates USDA would pay were adjusted to better reflect the relative productivity of the soil offered in each bid. In the early years of the CRP, when the focus was primarily on reducing soil erosion, CRP rent caps had been uniformly set, well above local cash market rates in parts of the Great Plains. The 10th signup adjustment resulted in significant rent cap reductions in these areas. But because Great Plains producers were accustomed to receiving relatively high CRP rental rates, many continued to bid at the old rates and were consequently rejected.

In signup 13 of September 1995, the EBI reflected soil erosion, water quality, tree planting, and wildlife habitat benefits, and producers were informed of the rent cap for their cropland based on the soil's productivity. Due to these changes, the Great Plains' share of new enrollment in the 13th signup increased to 38 percent, while the percentage enrolled in the Corn Belt and Lake States fell back to 43 percent.

The EBI for future signups will include criteria reflecting 1) wildlife habitat improvement, 2) water quality improvement resulting from reduced water erosion, runoff, and leaching, 3) on-farm benefits of reduced wind or water erosion, 4) long-term benefits of certain covers beyond the CRP contract period, 5) air quality benefits from reduced wind erosion, and 6) benefits of enrollment in conservation priority areas. In addition, future rental payment caps will continue to be based on local market rates adjusted for productivity of individual tracts offered for enrollment, and producers will know those caps prior to signup.

Table A-3 provides results of a simulation of a future 36.4-million-acre CRP using the Natural Resources Conservation Service's 1992 National Resources Inventory database. Eligibility, payment rates, and the EBI ranking process used were consistent with rules in place for future signups. In this simulation it was assumed that all lands that were eligible and likely to bid, including currently enrolled lands, are offered for enrollment at one time.

Although the exact regional distribution of future enrollment is uncertain, the simulation suggests that it is unlikely that regional shifts of the magnitude of signups 10-12 will occur in the future. In fact, 60 percent of the simulated future CRP acres are located in the Great Plains, the same as in the historic CRP, although there is a shift of approximately 1 million acres from the Southern Plains to the Northern Plains region. In addition, the share of CRP acreage located in the Corn Belt and Lake States regions remains unchanged. This implies that the commodity effects of the CRP in the future may not be very different from the current CRP.

Of the 36.4 million acres, 10.3 million represent re-enrollment of existing CRP acres, while the remaining 26.1 million would be newly enrolled acres. Of course, re-enrollment of existing CRP acres could be different because a higher proportion of

Table A-3--Simulation of a future 36.4-million-acre CRP

Region	Historic CRP 1/	Simulated future CRP
	Share of total enrollment	
	Percent	
Appalachian	3	5
Corn Belt	15	16
Delta	3	3
Lake States	8	8
Mountain	18	18
Northeast	1	2
Northern Plains	27	30
Pacific	5	3
Southeast	5	3
Southern Plains	15	12
U.S.	100	100

Miscellaneous statistics	Units	Historic CRP 1/	Simulated future CRP
Existing CRP acres renewed	Mil.	n/a	10.3
Acres within 100 feet of a waterbody	Thousand	255	482
Acres in conservation priority areas	Mil.	9.6	14.9
Annual tons of erosion reduced	Mil.	547	555
Avg. per acre erosion	T/a/y	15	15
Percent erosion water-caused	Percent	40	49
Avg. Erodibility Index		15	19
Acres with Erodibility Index > 30	Mil.	2.9	6.2
Total annual rental cost	$ bil.	1.82	1.66
Avg. per acre rent	Dollars	50	46
Avg. wildlife factor	(max=100)	11	39
Avg. water quality factor	(max=100)	14	19
Avg. erodibility factor	(max=100)	47	59
Avg. air quality factor	(max=25)	1	1
Avg. long-term cover factor	(max=50)	2	4
Avg. cons. priority area factor	(max=25)	7	10

1/ Based on 1992 National Resources Inventory.

existing CRP, relative to non-CRP acres, may actually be offered by producers. However, considering that not all producers will offer acres immediately and not all current CRP acres will expire at one time, the EBI ranking process simulation results suggest that more acres would be located in conservation priority areas, more erodible acres would be enrolled, rental costs would decline, and all EBI factor scores would increase, especially for the wildlife habitat factor and the conservation priority area factor.

Cited literature:

Osborn, C. Tim, Max Schnepf, and Russ Keim, 1994. *The Future Use of Conservation Reserve Program Acres: A National Survey of Farm Owners and Operators.* Soil and Water Conservation Society, Ankeny, Iowa, 47 pp.